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- GRAY SCALE DOCUMENTS

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Cooking Trial Data

Date:

 $\frac{2}{3}$

Product:

Breast

Supplied By:

Bob Webb

Test

Belt Speed	Cook Time
------------	-----------

Temperatures C.

Zone 1 | Zone 2

Cooked Weight

Yield

Remarks

「#

$$\begin{array}{r} 0.00 \\ \hline 35.0 \end{array}$$

659	660
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659

12

6.0 600

600 650

34

SAV NEUAN



3715 3715 600

3

5*

3

NOTES

14

2

3

2

5

36

NETTED PRODUCTS SMOKE 24
TOO DARK @ 302

277

44

45th liquid stone

U-04193

PTO-004157

UNITHERM Food Systems, Inc.										Date: 7/3
Cooking Trial Data				Product: CURE 81 HAM			Supplied By:			
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks	
			Zone 1	Zone 2						
#1	70	45 MIN	600	650				44	30% 24 P	
#2	90	3 MIN	600	650				44	30% 24 P	
#3										
#4										
#5										
#6										
NOTES										
#1										
#2										
#3										
#4										
#5										
#6										

U-04194

PTO-004158

* After HMT they sent ship past us

8243 → 7002
 Enter A/C 46.00
 5 change to 120.0
 Liquid Smoke 42 Hz
 Start 10:46.23
 Stop 10:49.15
 10:49.50
 10:53.35

Belt Speed Over

10:57.44 Start
 10:58.13 1st
 10:58.42 2nd

21 min
 8 1/2 min

Both tests
 net buried in
 some places

Confidential
 Restricted Access
 U-06963

8243 → 7102 60 Hz 11:05.50
 Surface temperature 2nd
 11:06.30
 11:07.40
 11:08.30
 11:09.50
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11:13.52
 Liquid Smoke 42 Hz 11:06.30
 11:11.54

3370 2nd
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8243 - 7002

Weight 9.38
9.26

11

10:22.4

40 Hz
Fast

11

25075 strip

Smoke

11:36.4

50 Hz

11:39.11

Wt at 10:22.4
Smoke 10:22.4

Over

11:39.11

55 Hz

11:45.50

Smoke 7:00

5600 65 Hz

Not burned

Weight 1104
5.930
8.895

8243 - 7002

10.445
10.275 after strip

Confidential
Restricted Access
U-06964

PTO-004161

Weight Time Date 10-51-60
~~9.735~~ 10.40.30 10.42.30 10.45.15
~~10.195~~ 10.40.00 10.44.30 10.47.15
~~10.575~~
~~10.520~~
~~10.125~~
~~10.015~~
 10.740
 10.69

After Cool

2.6%	97.4	9.675	1 2 = 4 Low
2.5%	97.5	9.940	
3.6%	96.4	10.190	
	97.6	10.270	
	97.3	9.855	
	97.8	10.015	Top Row
	97.6	10.420	
	96.9	10.355	Surface Temp 72°F

0268
 7785

Confidential
 Restricted Access
 U-06965

80602
E.46 0811

9.565
9.905

12:55:20

12:56:15

12:58:00

9.34
9.640

Confidential
Restricted Access
U-06966

PTO-004163

Ovens

- Belt wash to be set at end of ovens.
- 7' extension on oven track to go through walls

Bag splitter

- Condensed Barrel fits under table.
- Extend 1.5' to go through wall.
 - legs set back 1' to accomodate for I. R.
- Being longer. By 1'
- Pan under knife to catch Purge
- Check on how easy or hard the Bags come off.

Liquid Smoke applicator

- Red Arrow. suggested charges.
- 2 overnight storage tanks.

	Net/no		Skin/skinless
7001	Net	Mess	Skin on
7102	Net	Hick	Skin on
8246-32	No Net	MIS	Skinless
8246-02	No Net	Hick	Skinless
8243	With net	Mess	Skin on
8244-02	With net	Hick	Skin on
8247	No net	Mess	No skin
8246	No net		No skinless
7001	No net	Mess	Skinless

Confidential
Restricted Access
U-06967

PTO-004164

F. D. Dryden

Hormel Foods Research Report

Attention: W. Thielen - CO L. Huston - CO

Project Name: CURE-81 Hams processed at Unitherm

Copy List:M. Benson - R&D
D. Ruzek - R&D
G. Paxton - COG. Ray - CO
R. Slavik - CO
J. Swedberg - CO

C. Cornell - CO

Written By: S. Hoevet - 5822 J. Ulrich - 5810

Objective:

Evaluate CURE-81® hams further processed at Unitherm

Summary:

A cutting was held at R&D on October 21, 1997. Those attending were F. Dryden, W. Thielen, D. Ruzek, L. Huston, G. Paxton, C. Cornell, G. Ray, J. Swedberg, R. Slavik and J. Ulrich.

Product shown:

CURE-81® control

CURE-81® hour smoke only

Test #1: No preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #2: 50 sec. preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #3: 30 sec. preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #4: 30 sec. preheat, 1.5 min. liquid smoke with RA24 at 30%, 3 min. cook

Test #3 was selected as having the best color. Color tone and consistency were excellent. Negatives included a thicker rind and a bitter taste to the rind.

Recommendation:

1. Drop the smoke concentration to 15% or 20% to eliminate bitter taste
2. If color is comparable, eliminate the preheat to reduce the rind
3. For maximum shelf life:
 - a. process from cold
 - b. connect oven to chill tunnel to reduce surface temperature
 - c. package immediately

Jennie-O is buying a Unitherm unit which may be available for further testing. Steve Hoevet suggests additional testing be done at Unitherm with a large quantity of hams to test out the above recommendations.

All product from Test #3 was put into the shelf life cooler.

SMOKE CYCLE

TIME	DRY BULB	WET BULB
:45	140	120
:60	150	125
:90	150	130
:90	160	140
:60	170	150
:-	170	170

Wood Smoke

Steam Cook to IT 148° - 150°F

pjh (14205)

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U-06861

PTO-004166

W/NETS:

UNITHERM Food Systems, Inc.									
Cooking Trial Data					Date: 11/6/97				
T t #	Belt Speed	Cook Time	Product: <u>BARKEYS</u>		Supplied By: <u>EMULE-O</u>	Internal Temp. F.	Yield	Remarks	
			Temperatures C.						
			Zone 1	Zone 2					
#1	slow	45.00	600	650				SMOKE SELECT 24P 30% T.R. GRILL: 40 SEC. TIGHT NET/SPRAYS	
#2	38.00		525	600				24P @ 30% GRILL 45 SEC. TIGHT NET LIGHT SPRAY	
#3	38.00		525	600					
#4	3501		475	550				AUTOMATIC SMOKE APPLICATOR 30% 24P / IR GRILL FAST 35.00	
#5									
#6									

NOTES

#1 DID NOT WORK - REVERSED MARKS TRY LOWER TEMP LOWER IR WELL

#2 BETTER - STILL NOT THERE TRY LIGHTER SMOKE SPRAY

#3 SAME

#4 PROGRESS! TRY SAME TANG

PTO-004167

#5

#6

UNITHERM Food Systems, Inc.										Date: Dec. 04, 1997	
Cooking Trial Data											
Product: Whole Hams										Supplied By: BRYAN FOODS	
Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks		
			Zone 1	Zone 2							
#1	55 hz	5 min.	600	650	4.98	4.835	97.09%	Pre-cook 39 Post-cook 39	50% Charsol		
#2		5 min.	550	650	6.03	5.955	98.76%		50% Charsol		
#3		5 min.	550	650	6.98	6.77	96.99%		30% Charsol		
#4	60 hz	4.5 min.	500	650	7.15	6.95	97.20%		30% Charsol		
#5											
#6											
NOTES											
#1											
#2											
#3											
#4											
#5											
#6											

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U-8106

PTO-004168